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CLAIM AMENDMENTS

Please amend the claims under 37 C.F.R. §1.121(c). The following claim set replaces all prior sets of claims.

What is claimed is:

1-10. (CANCELED)

- 11. (NEW) A process for the depolymerization of glycosaminoglycanes comprising: exposing an aqueous solution to electron beam radiation, said solution comprising:
 - i) water;
 - ii) a glycosaminoglycane; and
 - iii) optionally, an organic compound selected from the group consisting of Formula I, Formula II, and Formula III:

wherein each R is independently selected from the group consisting of H, OH, CHO, C₁-C₆ alkyl and acyl, optionally substituted by oxygen atoms; two R groups optionally join together to form a ring, and wherein the concentration of the organic compound is from 0.1% to 5%.

- 12. (NEW) The process according to claim 11, wherein said exposing step is performed using a dynamic irradiation process.
- 13. (NEW) The process according to claim 11, wherein the glycosaminoglycane is heparin.
- 14. (NEW) The process according to claim 11, wherein the electron-beam radiation has an energy of from 100keV to 1000keV.

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15. (NEW) The process according to claim 11, wherein the organic compound is selected from the group consisting of methanol, ethanol, n-propanol, isopropanol, n-butanol, isobutanol, glycerol, tetrahydrofurane, dioxane, diethylether, tertbutylmethylether, dioxolane, formaldehyde, glyoxal, acetaldehyde, N,N-dimethyl formamide, N,N-dimethylacetamide, N,N-diethylformamide, and N-methylpyrrolidone.

16. (NEW) The process according to claim 11, wherein the amount of radiation used is from 400kGy to 8,000kGy.